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WEEK - 10

(Lab pgm 9)

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
class SwingDemo
{
    SwingDemo()
    {
        JFrame jfrm = new JFrame("Divides
                App");
        jfrm.setSize(275, 150);
        jfrm.setLayout(new FlowLayout());
        jfrm.setDefaultCloseOperation
          (JFrame.EXIT_ON_CLOSE);
        JLabel jlab = new ~~Jlab~~ JLabel
                  dividend
                ("Enter the ~~dividend~~ and
                  divider
                  ~~dividend~~");
        JTextField ajtf = new JTextField(8);
        JTextField ajtf = new JTextField(8);
        JButton button = new JButton("Calcula
        JLabel err = new JLabel();
        JLabel alab = new JLabel();
        JLabel blab = new JLabel();
        JLabel anslab = new JLabel();

        jfrm.add(err);
        jfrm.add(jlab);
        jfrm.add(ajtf);
        jfrm.add(bjtf);
        jfrm.add(button);
```

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```
jfrm.add(alab);
jfrm.add(blab);
jfrm.add(anslab);

ActionListener l = new
ActionListener()
{
    public void actionPerformed
    (ActionEvent evt)
    {
        System.out.println("Action
        event from a text field");
    }
};
ajtf.addActionListener(l);
bjtf.addActionListener(l);
button.addActionListener(new
ActionListener()
{
    public void actionPerformed
    (ActionEvent evt)
    {
        try {
            int a = Integer.
            parseInt(ajtf.getText
            ());
            int b = Integer.
            parseInt(bjtf.
            getText());
            int ans = a/b;

alab.setText("\n A = "+a);
blab.setText("\n B = "+b);
```

```
            ans lab.setText("In Ans = "+ans);
        }
        catch(NumberFormatException e)
        {
            alab.setText("");
            blab.setText("");
            ans lab.setText("");
            err.setText("Enter Only Integers!");
        }
        catch(ArithmeticException e)
        {
            alab.setText("");
            blab.setText("");
            ans lab.setText("");
            err.setText("B should be NON zero!");
        }
    }
});
jfrm.setVisible(true);
}
public static void main(String args[])
{
    SwingUtilities.invokeLater(new Runnable()
    {
        public void run()
        {
            new SwingDemo();
        }
    });
}
}//end of class Swing Demo
```

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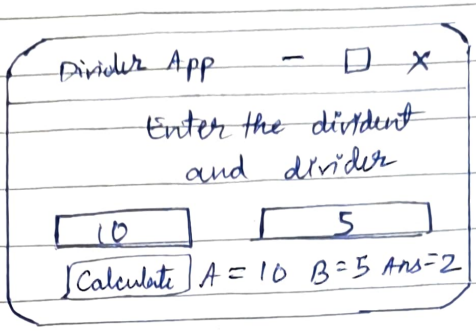
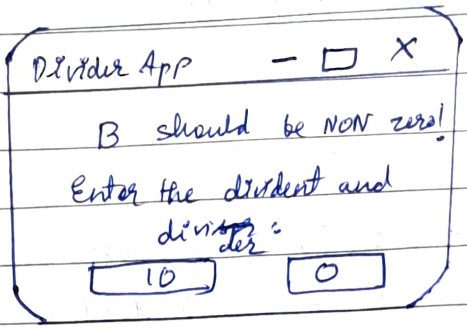
OUTPUT:

i)



ii)



Definition of the following fns used in the program:

⇒ 1) JFrame: It is a class that represents the window containing the GUI.

⇒ 2) setSize: Is a method of 'JFrame' class that sets the size of the frame. (275 x 158 width height)

⇒ 3) setLayout: Is a method of the 'Container' used to set layout manager for the container.

⇒ 4) setDefaultCloseOperation: Is a method of 'JFrame' which sets default operation when the frame is closed. Here 'JFrame.EXIT_ON_CLOSE' is set, ie the application will terminate when frame is closed.

⇒ 5) JLabel: It is class used to display a non-edible text or image. Here it is used to display "Enter divend and divider"

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Select Table1 as A, Tab 2 as B, Tab3 as C
Tab4 as D
A.Tab1 = B.Tab2 and B.Tab2 = C.Tab3
and C.Tab3 = D.Tab4
where na = ' ' and g ( )
wr (a) = 2 ;

⇒ 6) JTextField : It is a class used to create a text field component that allows the user to enter text.

⇒ 7) add : Is a method of 'Container' class used to add components to the container. Here, 'JLabel', 'JTextField', 'JButton' are added to the frame using 'add' methods.

⇒ 8) ActionListener : Is an interface used to handle action events. Here, action listeners are added to 'aftf', 'bjtf' and 'button' to perform certain actions when specific events occur.

⇒ 9) setText : Is a method of 'JLabel' class used to set the text of the label dynamically. In this program, 'setText' is used to update the labels 'alab', 'blab', 'anslab' with calculated values or error messages.

20.02.24